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Endangered beetle stalls erosion control along bay

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GROVE POINT - Jim Twohy's waterfront home might soon tumble into the Chesapeake Bay from atop a 60-foot cliff. He wants to build a wall to save the house, but some meddlesome neighbors are standing in the way.

The neighbors are puritan tiger beetles, a threatened species half an inch long. To protect the bugs, the U.S. Fish and Wildlife Service is trying to stop construction of a rock barrier that Twohy and his civic association say is necessary to prevent a half-dozen houses from toppling into the water.

Although Twohy had never heard of the beetle until he applied for a permit last year, it turns out the puritans have highly rigid breeding rituals that happen to clash not only with development but also with many people's ideas of environmental protection.

The drab little insect demands the continued breakdown of cliffs along the Chesapeake Bay - active erosion - so its larvae can tunnel into crumbling clay beside the water. The rock wall that Twohy wants to build would stop the erosion and, thus, could illegally prevent the beetles from reproducing.

"We've heard a lot of support for the puritan tiger beetle from the federal government," said Twohy, 65, a retired computer consulting executive. "But what about the concerns of citizens, their lives and homes, and keeping the Chesapeake Bay clear of muddy runoff and siltation, which is killing marine life?"

Several clashes like this one across the country - over development plans complicated by the Delhi sands flower-loving fly in California or the eyeless Kretschmarr cave mold beetle in Texas - have persuaded some congressional Republicans to push for overhauling the Endangered Species Act.

Many environmentalists, however, argue that such "reform" would gut a highly successful conservation program and is meant largely to help wealthy developers and landowners who want to save money on construction projects.

In Grove Point, the federal Fish and Wildlife Service says, the wall Twohy wants to build could help exterminate one of the world's three remaining Cicindela puritana populations. They are in Cecil County, in Southern Maryland's Calvert County and along the Connecticut River in New England.

Instead of a $300,000 rock wall, the agency wants Twohy and his Chesapeake Haven Civic Association to spend about $412,000 to build a breakwater 150 feet out into the bay. The association's engineer, Frank Falcone, rejects that idea, saying it won't stop the landslides that are threatening the homes and might interfere with boat traffic.

John Wolflin, supervisor of the Chesapeake Bay office of the Fish and Wildlife Service, said the case presents a conflict in environmental goals - between stopping erosion and protecting an endangered species.

But he said the breakwater would be better: It would reduce some of the erosion caused by waves, while saving a colony of about 250 beetles important for biological diversity.

"This species is already highly vulnerable," Wolflin said. "My job is to do what Congress has charged me to do, which is to not jeopardize the continued existence of a species."

The U.S. Army Corps of Engineers is considering a biological opinion issued by Wolflin's agency this month, which advised the corps not to issue a permit for a 750-foot-long rock barrier at the foot of the cliff.

"When you've got an endangered species like you do here, that does make projects a lot more difficult," said Bob Nelson, spokesman for the Corps' Baltimore office.

Rep. Richard W. Pombo of California, Sen. Lincoln Chafee of Rhode Island and others in Congress are demanding more input from landowners into decisions by the federal government on endangered species.

"The Endangered Species Act is the most rigid law on the books, and there is very little room for public input," said Pombo spokesman Brian Kennedy. "It's had an abysmal record of success, with only 10 species recovered out of 1,300 species that have been listed over the last three decades."

But Andrew Wetzler, senior staff attorney for the Natural Resources Defense Council, says the revisions sought by Pombo are a political favor to developers who contribute to political campaigns. The act should be saved, he says, because it has prevented the extinction of 98 percent of the species listed for protection, including the bald eagle, gray wolf, blue whale and whooping crane.

While only a few species have recovered fully, that is because scientists say this often requires a half-century or longer. The real issue, Wetzler said, is that landowners do not want to pay more to make their projects more sensitive to nature.

"The Endangered Species Act doesn't really stop projects, it only makes them marginally more expensive. And it offers alternatives to do things in a more responsible way that protects society's interest in protecting endangered wildlife," he said.

Puritan tiger beetles are like the Puritans from Colonial New England in that they keep their bodies covered and maintain strict rules about mating.

The insects' reproduction scheme requires injecting eggs into collapsing clay cliffs, said C. Barry Knisely, a professor of biology at Randolph Macon College in Virginia. Unfortunately, the soft, unstable bluffs they demand for breeding sometimes fall on top of them, killing them and their offspring.

In June, the larvae that survive the landslides emerge from their burrows as skinny, flying beetles with white question-mark shapes on their brownish backs. They mate on the beach during a four-week period before stashing their eggs into the bluffs and dying.

The eggs hatch, and the grub-like offspring carve waterfront apartments, in which they lurk for three

years (assuming the crumbly walls don't fall in). They shoot their jaws out to devour ants that amble past. This violence is the "tiger" part of the puritan's split personality.

The main force driving the beetles toward extinction is erosion control, Knisely said.

Their numbers have plummeted by two-thirds since they were listed as threatened in 1990, with perhaps 5,000 of them left in the world. Roughly 80 percent are thought to be in the few remaining cliffs overlooking the Chesapeake Bay that have not been stabilized.

"What are they worth? Some people need to put a price tag on everything, I guess," Knisely said. "They are natural wonders, you could say. Maybe not as much of a natural wonder as a grizzly bear. But if they disappear, that means their whole beach habitat has disappeared. And so part of their significance is using these beetles to protect these natural cliffs."

Atop the cliffs at Grove Point, Twohy for the past six years has enjoyed living in retirement with his wife in a 60-year-old white ranch-style house with a broad porch and stunning views of the northern bay. He said he doesn't know how much respect to give the puritans that breed on his property.

"Frankly, I don't think they're very good parents, if they're going to put their children into a collapsing cliff," Twohy said, as he strolled past fallen trees along the 10-foot-wide beach at the base of his bluff.

He pointed to an electric utility pole at the top of the cliff, near his back door. It could topple any day, blacking out the whole neighborhood, tumbling down with his house and septic system into the water, he said.

Last year, a 15-foot-wide, 25-foot-deep chunk of his back yard, weighing an estimated 31,000 tons, thundered down all at once.

"I'm in favor of protecting the environment," he said, "but somebody's going to get killed here soon if we don't build something to stabilize this cliff."